

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PRE-APPEAL BRIEF REQUEST FOR REVIEW	Docket Number (Optional) MAT-8869US	
	Application Number 10/586,129	Filed July 17, 2006
	First Named Inventor Takayasu OHARA et al.	
	Art Unit 3742	Examiner Ket D. Dang

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.

See 37 CFR 3.7.1 Statement under 37 CFR 3.73(b) is enclosed
(Form PTO/SB/96)

☒ attorney or agent of record.

Registration number **34,515**

☐ attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____

Signature

Lawrence E. Ashery

Typed or printed name

(610) 407-0700

Telephone number

February 7, 2011

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing this form, call 1-800-PTO-9199 and select option 2.

Rejections Under Review

Claims 1, 2, and 4-14 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Haniya et al. (US 2004/0261562) in view of Meyerhoff et al. (US 2005/0166699). Applicants submit that this rejection should be reversed for the following reasons.

Claims 1, 2, and 4-8 include the feature of a rotatable wire feeder ("a wire feeder...rotatable relative to the second arm around a rotation axis"). The Examiner asserts that this feature is shown in the wire feeding unit 11 of Haniya. However, the Examiner is incorrect, because the wire feeding unit 11 of Haniya is not rotatable, but is fixed to the industrial robot.

Claims 1, 2, and 4-8 also include the feature of a cable electrically coupling the wire feeder to an industrial robot ("a feeder cable electrically coupling between an inside of the industrial robot and the wire feeder"). The Examiner asserts that this feature is shown in the conduit cable 12 of Haniya. However, the Examiner is incorrect, because the conduit cable 12 of Haniya does not electrically couple the wire feeding unit 11 to the industrial robot.

Finally, claims 9-14 include the feature of a wire feeder positioned on a side face of an industrial robot that is opposite from an arm of the industrial robot ("a fourth arm attached to...one side face of the second arm [and] a wire feeder provided to the second arm...located opposite to the fourth arm"). The Examiner does not address this feature at all in the Office Action. Nonetheless, this feature is not disclosed, taught, or suggested by the cited art, because the wire feeding unit 11 of Haniya is positioned behind the industrial robot, and not on a side face opposite an arm of the robot.

Accordingly, Applicants respectfully submit that these claims are allowable over the cited art. Applicants' detailed arguments in support of reversing the rejection are set forth below.

Claims 1, 2, and 4-8

Applicants' invention, as recited by claim 1, includes a feature which is not disclosed, taught, or suggested by the cited art, namely:

...a wire feeder provided to the second arm and being rotatable relative to the second arm around a rotation axis...

...a rotating hollow pipe shaft located coaxially with the rotation axis of the wire feeder...and...

...a feeder cable electrically coupling between an inside of the industrial robot and the wire feeder, the feeder cable passing through the rotating hollow pipe shaft....

The wire feeder is rotatable relative to the second arm around a rotation axis. The rotating hollow pipe shaft is located coaxially with the rotation axis of the wire feeder. The feeder cable passes through the rotating hollow pipe shaft to electrically couple the wire feeder with the industrial robot. This feature is found in the original application, for example, at page 5, line 19 to page 6, line 24, and FIGS. 2 and 3.

Applicants submit that Haniya fails to disclose, teach, or suggest at least the above features of claim 1. Haniya is directed to an industrial robot. As illustrated in FIGS. 1 and 2, Haniya discloses an industrial robot mounted on a base stand 1. A turning base 2 is mounted to the base stand 1. A lower arm 3 is supported on the turning base 2. An upper arm 4 is pivotably mounted on the lower arm 3. Haniya further discloses a wire feeding unit 11 fixed to the rear portion of upper arm 4. Wire feeding unit 11 feeds welding wire through a conduit cable 12 to a wire torch 9. See Haniya at paragraphs [0033]-[0035] and FIGS. 1 and 2.

The Office Action asserts that the wire feeding unit 11 of Haniya corresponds to the wire feeder of claim 1, and the upper arm 4 corresponds to the second arm of claim 1. Applicants disagree. Haniya does not disclose, teach, or suggest that wire feeding unit 11 is rotatable relative to upper arm 4. To the contrary, Haniya clearly discloses that wire feeding unit 11 is fixedly mounted to upper arm 4. See FIGS. 1 and 2 of Haniya.

Nonetheless, the Office Action asserts that wire feeding unit 11 is rotatable around the R-axis shown in FIG. 1 of Haniya. Applicants disagree. Haniya discloses that wrist

portion 5 is rotatable relative to upper arm 4 around the R-axis. See paragraph [0034] of Haniya. Haniya fails to disclose, teach, or suggest that wire feeding unit 11 is rotatable relative to upper arm 4 around the R-axis.

Further, the Office Action asserts that conduit cable 12 corresponds to the feeder cable of claim 1. Applicants disagree. Haniya does not disclose, teach, or suggest that the conduit cable 12 provides electrical coupling between an inside of the industrial robot and wire feeding unit 11. To the contrary, Haniya discloses that conduit cable 12 feeds welding wire from wire feeding unit 11 to wire torch 9, similar to the torch cable of claim 1. Applicants respectfully submit that Haniya fails to disclose, teach, or suggest an element corresponding to the feeder cable of claim 1.

Accordingly, Haniya fails to disclose, teach, or suggest at least the above features of claim 1. Applicants submit that Meyerhoff fails to make up for the deficiencies of Haniya with respect to claim 1. Meyerhoff is directed to a multi-joint robot. As illustrated in FIG. 7, Meyerhoff discloses a multi-joint robot having arms 13 and 15. Arms 13 and 15 are rotatable relative to each other around hollow shaft 14. Wiring 36 passes through hollow shaft 14. See Meyerhoff at paragraphs [0054]-[0057] and FIG. 7. Meyerhoff fails to disclose a welding wire feeder. Thus, Meyerhoff also fails to disclose a feeder cable electrically coupling between an inside of an industrial robot and a wire feeder.

For the above reasons, Applicants respectfully submit that Haniya in view of Meyerhoff fails to disclose, teach, or suggest "a wire feeder provided to the second arm and being rotatable relative to the second arm around a rotation axis...a rotating hollow pipe shaft located coaxially with the rotation axis of the wire feeder...and...a feeder cable electrically coupling between an inside of the industrial robot and the wire feeder, the feeder cable passing through the rotating hollow pipe shaft," as recited in claim 1.

Applicants submit that the Office Action has failed to establish a *prima facie* case of obviousness to sustain a rejection of Applicants' claim 1. Accordingly, for the reasons set forth above, claim 1 is allowable over the cited art.

Claims 2 and 4-8 include all of the features of claim 1, from which they depend. Thus, claims 2 and 4-8 are also allowable over the cited art for at least the reasons set forth above with respect to claim 1.

Claims 9-14

Applicants' invention, as recited by claim 9, includes a feature which is not disclosed, taught, or suggested by the cited art, namely:

...a second arm...

...a fourth arm attached to...one side face of the second arm...

...a wire feeder provided to the second arm...the wire feeder located opposite to the fourth arm relative to a rotating axis of the first arm.

The fourth arm and the wire feeder are both attached to the second arm. The wire feeder is located opposite to the fourth arm relative to the axis of rotation of the first arm. This feature is found in the original application, for example, at page 5, line 19 to page 6, line 24, and FIG. 4.

Applicants submit that Haniya fails to disclose, teach, or suggest at least the above features of claim 9. The Office Action asserts that lower arm 3 corresponds to the fourth arm of claim 9. However, the Office Action does not assert that Haniya discloses, teaches, or suggests the feature of "a wire feeder...located opposite to the fourth arm relative to a rotating axis of the first arm," as recited in claim 9. This feature appears to be omitted from the Office Action.

Applicants submit that Haniya does not disclose this feature. As illustrated in FIGS. 1 and 2, Haniya discloses that wire feeding unit 11 is positioned behind and fixed to upper arm 4. See FIGS. 1 and 2 of Haniya. Haniya fails to disclose, teach, or suggest that wire feeding unit 11 is located on an opposite side from lower arm 3.

Accordingly, Haniya fails to disclose, teach, or suggest at least the above features of claim 9. Applicants submit that Meyerhoff fails to make up for the deficiencies of Haniya with respect to claim 9. Meyerhoff fails to disclose a welding wire feeder. Thus, Meyerhoff fails to provide any teaching regarding the location of a wire feeder on an industrial robot.

For the above reasons, Applicants respectfully submit that Haniya in view of Meyerhoff fails to disclose, teach, or suggest "a second arm...a fourth arm attached

to...one side face of the second arm [and] a wire feeder provided to the second arm...the wire feeder located opposite to the fourth arm relative to a rotating axis of the first arm," as recited in claim 9.

Applicants submit that the Office Action has failed to establish a *prima facie* case of obviousness to sustain a rejection of Applicants' claim 9. Accordingly, for the reasons set forth above, claim 9 is allowable over the cited art.

Claims 10-14 include all of the features of claim 9, from which they depend. Thus, claims 10-14 are also allowable over the cited art for at least the reasons set forth above with respect to claim 9.

Conclusion

In view of the remarks set forth above, favorable review and reversal of the final rejection is respectfully requested.

AJK_1162952_1